



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/589,703	03/19/2007	Noel N. De Keyser	L0014/US	2221
<div>7590 04/17/2008</div> <div>Donna B. Holguin KRATON Polymers U.S. Intellectual Property Asset Manager 3333 Highway 6 South, Rm. CA-110 Houston, TX 77082</div> <div>EXAMINER SCOTT, ANGELA C</div> <div>ART UNIT 1796</div> <div>PAPER NUMBER</div> <div>MAIL DATE 04/17/2008</div> <div>DELIVERY MODE PAPER</div>				

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/589,703

Applicant(s)

DE KEYZER ET AL.

Examiner

ANGELA C. SCOTT

Art Unit

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SE/US)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 8-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over De Keyzer et al. (WO 02/057386).

Regarding claims 8-12: De Keyzer et al. teaches an adhesive composition (pg. 1 line 2) comprising 100 parts by weight of a block copolymer (pg. 8 lines 4-6) having a structure represented by A-C-A wherein A represents a polymer block of an aromatic vinyl compound and C is a mixed polymer block of butadiene and isoprene (page 4 lines 9-15) in a weight ratio of 1:1 (3a on table on page 15), which falls within the claimed range. The aromatic vinyl compound is

Art Unit: 1796

preferably styrene (pg. 4 lines 20-25). The coupling efficiency is from 81-87 % (pg. 19 table 2). The composition additionally comprises from 100-300 parts by weight (pg. 8 lines 28-3) of a hydrocarbon tackifying resin (pg. 8 line 9), specifically 250 parts (pg. 28 table 9), from 5 to 150 parts by weight of a plasticizer (pg. 9 lines 16-20), and from 1 to 3 parts by weight (tables 9-12) of one or more auxiliaries such as antioxidants and other stabilizing ingredients (pg. 9 lines 29-32). Further taught is the vinyl content in butadiene is 8 weight percent and the vinyl content in isoprene is 5 weight percent (pg. 19 table 2) and the polystyrene content is 30 wt% (pg. 19 table 2 "F").

The block copolymers according to the present invention each preferably have a weight average molecular weight ranging from 100,000 to 500,000 (pg. 5 lines 7-8). Not disclosed is the molecular weight of 124,000-145,000. However, the experimental modification of this prior art in order to ascertain optimum operating conditions fails to render applicants' claims patentable in the absence of unexpected results. See *In re Aller*, 105 USPQ 233 and MPEP 2144.05. At the time of the invention a person having ordinary skill in the art would have found it obvious to optimize the molecular weight of the copolymer and would have been motivated to do so for such desirable properties as a cured product with sufficient flexibility and adhesiveness. A prima facie case of obviousness may be rebutted, however, where the results of the optimizing variable, which is known to be result-effective, are unexpectedly good. See *In re Boesch and Slaney*, 205 USPQ 215.

Claims 13-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over De Keyser et al. (WO 02/057386).

Regarding claims 13-18: De Keyzer et al. teaches disposable soft goods, such as diapers, feminine care articles and surgical drapes (pg. 1 lines 10-14), which have a non-woven element (disposable diapers have these) and they are assembled using a hot melt adhesive composition (pg. 1 lines 10-14). The adhesive composition comprises 100 parts by weight of a block copolymer (pg. 8 lines 4-6) having a structure represented by A-C-A wherein A represents a polymer block of an aromatic vinyl compound and C is a mixed polymer block of butadiene and isoprene (page 4 lines 9-15) in a weight ratio of 1:1 (3a on table on page 15), which falls within the claimed range. The aromatic vinyl compound is preferably styrene (pg. 4 lines 20-25). The coupling efficiency is from 81-87 % (pg. 19 table 2). The composition additionally comprises from 100-300 parts by weight (pg. 8 lines 28-3) of a hydrocarbon tackifying resin (pg. 8 line 9), specifically 250 parts (pg. 28 table 9), from 5 to 150 parts by weight of a plasticizer (pg. 9 lines 16-20), and from 1 to 3 parts by weight (tables 9-12) of one or more auxiliaries such as antioxidants and other stabilizing ingredients (pg. 9 lines 29-32). Further taught is the vinyl content in butadiene is 8 weight percent and the vinyl content in isoprene is 5 weight percent (pg. 19 table 2) and the polystyrene content is 30 wt% (pg. 19 table 2 "F").

The block copolymers according to the present invention each preferably have a weight average molecular weight ranging from 100,000 to 500,000 (pg. 5 lines 7-8). Not disclosed is the molecular weight of 124,000-145,000. However, the experimental modification of this prior art in order to ascertain optimum operating conditions fails to render applicants' claims patentable in the absence of unexpected results. See *In re Aller*, 105 USPQ 233 and MPEP 2144.05. At the time of the invention a person having ordinary skill in the art would have found it obvious to optimize the molecular weight of the copolymer and would have been motivated to

do so for such desirable properties as a cured product with sufficient flexibility and adhesiveness. A prima facie case of obviousness may be rebutted, however, where the results of the optimizing variable, which is known to be result-effective, are unexpectedly good. See *In re Boesch and Slaney*, 205 USPQ 215.

Claims 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over De Keyzer et al. (WO 02/057386).

Regarding claims 19-21: De Keyzer et al. teaches the block copolymers having a structure represented by A-C-A wherein A represents a polymer block of an aromatic vinyl compound and C is a mixed polymer block of butadiene and isoprene (page 4 lines 9-15) in a weight ratio of 1:1 (3a on table on page 15), which falls within the claimed range. The aromatic vinyl compound is preferably styrene (pg. 4 lines 20-25). The coupling efficiency is from 81-87 % (pg. 19 table 2). Further taught is the vinyl content in butadiene is 8 weight percent and the vinyl content in isoprene is 5 weight percent (pg. 19 table 2) and the polystyrene content is 30 wt% (pg. 19 table 2 "F").

The block copolymers according to the present invention each preferably have a weight average molecular weight ranging from 100,000 to 500,000 (pg. 5 lines 7-8). Not disclosed is the molecular weight of 124,000-145,000. However, the experimental modification of this prior art in order to ascertain optimum operating conditions fails to render applicants' claims patentable in the absence of unexpected results. See *In re Aller*, 105 USPQ 233 and MPEP 2144.05. At the time of the invention a person having ordinary skill in the art would have found it obvious to optimize the molecular weight of the copolymer and would have been motivated to

Art Unit: 1796

do so for such desirable properties as a cured product with sufficient flexibility and adhesiveness. A prima facie case of obviousness may be rebutted, however, where the results of the optimizing variable, which is known to be result-effective, are unexpectedly good. See *In re Boesch and Slaney*, 205 USPQ 215.

Response to Arguments

Applicant's arguments with respect to claims 8-21 have been considered but are moot in view of the new ground(s) of rejection.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANGELA C. SCOTT whose telephone number is (571)270-3303. The examiner can normally be reached on Monday through Friday, 7:30am to 5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on (571) 272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1796

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark Eashoo/
Supervisory Patent Examiner, Art Unit 1796
14-Apr-08

/A. C. S./
Examiner, Art Unit 1796